

ABSTRACT

A radio communication apparatus is disclosed that enables the influence of the feedback information on the channel capacity to be kept to the minimum without reducing the transmission efficiency of information by transmission of pilot symbol. In the apparatus, a delay dispersion measuring section (272) generates a delay profile using the received signal, and measures delay dispersion indicative of dispersion of delayed versions. A moving speed estimating section (274) estimates moving speed of a mobile station apparatus that transmits a pilot symbol based on the variation in reception power of the pilot symbol. An other-cell interference measuring section (276) measures other-cell interference caused by signals transmitted in cells except the cell to which the apparatus belongs. Corresponding to the delay dispersion, moving speed and other-cell interference, a pilot pattern information generating section (278) selects a pilot pattern such that placement of pilot symbol is optimal in a frame, and generates the pilot pattern information.